

Group 11 Insecticide

**VectoBac FG+**  
Biological Larvicide

Fine Granule

Live Organism

RESTRICTED

ACTIVE INGREDIENT: *Bacillus thuringiensis*, subspecies *israelensis*, serotype H-14,  
strain AM 65-52..... 400 International Toxic Units (ITU) per milligram.

Warning, contains the allergen soy

READ THE LABEL BEFORE USE  
KEEP OUT OF REACH OF CHILDREN  
POTENTIAL SENSITIZER  
CAUTION EYE IRRITANT

REGISTRATION NO. 34734 PEST CONTROL PRODUCTS ACT NET

CONTENTS:

Lot. No.

Date of Manufacture:

Registrant:  
Valent BioSciences LLC  
1910 Innovation Way, Suite 100  
Libertyville, Illinois 60048, USA  
1-800-323-9597

Canadian Agent:  
Valent Canada, Inc.  
201-203 Hanlon Creek Blvd  
Guelph, Ontario N1C 0A1

## PRECAUTIONS

PREVENT ACCESS BY UNAUTHORIZED PERSONNEL. MAY

CAUSE SENSITIZATION

CAUTION EYE IRRITANT

Avoid contact with skin, eyes, and clothing. Avoid breathing dust/spray mist. Wear a long sleeved shirt, long pants, protective eyewear (goggles), waterproof gloves, socks and shoes, and NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter for biological products when handling, mixing/loading or applying the product and during all clean-up/repair activities. Applicators may remove gloves, eye goggles and respirators if the design and delivery of the application apparatus reduces exposure to a negligible level (e.g. backpack sprayer with application wands that apply product directly over water surface). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

<b>FIRST AID</b>	
If swallowed	Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.
If on skin or clothing	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.
If inhaled	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.
If in eyes	Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.
	Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION: Treat symptomatically.

### STORAGE:

Store this product away from food or feed. VectoBac FG+ should be used within 24 months from the date of manufacture when stored in the original container at 0 - 25°C.

### DISPOSAL:

Completely empty the bag into the application equipment. Follow provincial instruction for any required additional cleaning of the container prior to its disposal. Make the empty container

unsuitable for further use. Dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

**NATURE OF RESTRICTION:** This product is to be used only in the manner authorized; consult local pesticide regulatory authorities about use permits which may be required.

This authorization is granted under the Pest Control Products Act and does not exempt the user from other legislative requirements such as those under the Fisheries Act.

## **DIRECTIONS FOR USE**

### **Use Restrictions**

DO NOT apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

### **MOSQUITOES**

#### **Suggested Range Rate**

Habitat: Standing Water

1.4 - 22.4 kg/ha\*

Irrigation ditches, roadside ditches, flood water, standing ponds, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, and salt marshes.

\*Use higher rates in deep and/or polluted water, and when late 3rd and 4th instar larvae predominate.

#### **\* Post-flood Applications**

Use 5.6 - 11.2 kg/ha when dense populations of early 4th instar larvae are present, water contains an abundance of algae or organic matter, and/or local experience suggests the need for higher rates. Re-treat as needed based on local conditions.

Use 1.4-5.5 kg/ha when populations of mosquito larvae are low, water contains small amounts of algae or organic matter, and/or local experience suggests a reduced need for high rates but still requires population control.

#### **\* Pre-flood Applications**

VectoBac FG+ can be applied prior to flooding of mosquito larval habitats. Use 11.2 - 22.4 kg/ha when up to 7 days pre-flood capacity is needed. Use 22.4 kg/ha when a 7-14 day pre-flood application is needed. Retreat as needed. Consult your local Valent BioSciences representative for further advice on pre-flood applications with VectoBac FG+.

Apply uniformly by aerial or ground conventional equipment. Avoiding drift at the application

site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

### **Aerial Application**

#### **Aerial Application Instructions:**

Apply only by fixed-wing or rotary aircraft equipment that has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product-specific. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment. Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices or a GPS system.

#### **Use Precautions:**

Apply only when meteorological conditions at the treatment site allow for complete and even coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

#### **Operator Precautions:**

DO NOT allow the pilot to mix product to be loaded onto the aircraft. Loading of premixed product with a closed system is permitted. It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear the personal protective equipment described in the PRECAUTIONS section of this label. When handlers/loaders use closed systems to load product onto the aircraft, the handler requirement for eye goggles and a NIOSH-approved particulate filtering respirator with any N, R, or P filter for biological products may be waived. When reduced personal protective equipment is worn, the respirator and eye goggles must be immediately available for use in an emergency such as a spill or equipment breakdown.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing must be washed before reuse. Decontaminate aircraft cockpit and vehicle cabs if contamination occurs.

#### **Product Precautions:**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-323-9597 or obtain technical advice from the distributor or from your provincial agricultural or forestry representative. Application of this specific product must meet and/or conform to the aerial uses and rates on this label.

#### **RESISTANCE MANAGEMENT RECOMMENDATIONS:**

For resistance management, please note that VectoBac FG+ Biological Larvicide contains a Group 11 insecticide. Any insect population may contain individuals naturally resistant to VectoBac FG+ Biological Larvicide and other Group 11 insecticides. The resistant individuals

may dominate the insect population if this group of insecticides are used repeatedly in the same site. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. The following appropriate resistance management strategies should be followed to delay insecticide resistance:

- Where possible, rotate the use of VectoBac FG+ Biological Larvicide or other Group 11 insecticides with different groups that control the same pests in a site.
- Insecticide use should be based on an Integrated Pest Management program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or integrated pest management recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact Valent BioSciences LLC at 1-800-323-9597